

## **Appendix B**

### **Complexity Analysis**

## **BUREAU OF LAND MANAGEMENT FIRE PROGRAM COMPLEXITY ANALYSIS INSTRUCTIONS**

### **Unit and State Responsibilities**

Each BLM unit identified below will perform the fire program complexity analysis in the *Interagency Fire Program Management Qualifications and Standards Guide*, beginning on page 6-1, and forward the results to their State Office **before December 1, 2004**. Each State Office will then review the unit level complexity analyses, to ensure that they were completed in a consistent manner, **before January 30, 2005**. If a discrepancy or inconsistency is detected, the unit FMO will be contacted and asked the rationale for a particular score.

After completing the review process, each State Office will then forward the completed analyses to that State servicing Human Resource Office and to the BLM Office of Fire and Aviation Operations Group (Tom Romanello)

**Alaska:** AFS.

**Arizona:** Arizona Strip Field Office; Phoenix/Kingman Zone; Safford/Tucson Zone; Yuma/Lake Havasu Zone.

**California:** California Desert District; Central California Region; Northern California Field Offices.

**Colorado:** Front Range Interagency Fire Center; Montrose Interagency Fire Management; Northwest Colorado Fire Management Unit; San Juan Public Lands Center; Upper Colorado River Interagency Fire Management.

**Eastern States:** Eastern States FMO and associated program.

**Idaho:** Lower Snake River District; Upper Snake River District Eastern Idaho; Upper Snake River District Shoshone/Burley; Upper Columbia Salmon-Clearwater District.

**Montana:** Each of the three Zone fire programs.

**Nevada:** Each of the six Field Office fire programs.

**New Mexico:** Each of the seven Field Office fire programs.

**Oregon:** Each of the ten District Office fire programs.

**Utah:** Each of the five Field Office fire programs.

**Wyoming:** Each of the four Zone fire programs.

### **Support for Completing the Complexity Analysis**

If there are questions that cannot be resolved at the local or State level regarding the *Unit Fire Program Complexity Analysis*, please contact Tom Romanello, BLM Fire Operations, at (208) 387-5722.

## NATIONAL PARK SERVICE

### FIRE PROGRAM COMPLEXITY ANALYSIS INSTRUCTIONS

The completion of the *Interagency Fire Program Management Qualifications Standards and Guide (IFPM Standard) Unit Fire Program Complexity Analysis* is the first step in implementing the IFPM process. Delays in this first step could have future ramifications for fire staff employees who will be affected by *IFPM Standard*.

The purpose of the *Unit Fire Program Complexity Analysis* is to assess the wildland fire program complexity of each federal unit responsible for a wildland fire program. In 1996, in response to the *1995 Federal Wildand Fire Management Policy and Program Review*, the Departments of Interior and Agriculture published the *Implementation Action Plan Report*. Action Item 27 of the implementation plan states that agencies “shall establish fire management qualifications **based on program complexity**, and staff existing and future Agency administration and fire management vacancies with individuals who meet these qualifications and who are committed to accomplishing the total fire management program.” The *Unit Fire Program Complexity Analysis* is the first step in the IFPM process.

The *Unit Fire Program Complexity Analysis* beginning on page 6-1 in the IFPM Standard contains specific instructions on how to complete the Complexity Analysis worksheet. It is important to carefully read the instructions and apply the Guiding Principles, Complexity Analysis Guide (in this Appendix), and sub-element descriptions before completing the worksheet. Depending on scope and breadth of a unit’s fire program, complexity of each park’s fire program will be rated at a low, moderate or high.

#### **Park Responsibilities**

Each National Park Service Park Fire Management Office at the park level will complete the Unit Complexity Analysis in the *IFPM Standard*, beginning on page 6-1. The *IFPM Standard*, instructions, supporting documents and worksheet to complete the analysis can also be found on the Internet at [http://www.nifc.gov/training\\_qual/IFPM/ifpm.htm](http://www.nifc.gov/training_qual/IFPM/ifpm.htm). **Parks are required to complete the complexity analysis by December 1, 2004.**

The Park Fire Management Officer is the lead for completing the unit’s complexity analysis. It is recommended that additional park fire staff be included/consulted when completing the analysis. It is estimated that the analysis will take two to four hours to complete.

Park Fire Management Officers assigned to support more than one park should complete just one complexity analysis covering all parks under their responsibility, not a separate complexity analysis for each park.

By December 1, 2004, Parks should send their completed Unit Complexity Analysis worksheet to their respective Regional Fire Management Office.

## **Regional Responsibilities**

The Regional Fire Management Officer is responsible for reviewing and leveling the complexity analysis from each park in his/her region, to ensure that no glaring errors or discrepancies exist, and that each park's score is realistic in comparison with other parks in the region. **Regional review and leveling of park complexity analyses is to be completed by January 30, 2005.** The RFMO can perform this action by him/herself, or can convene a panel to review the scores. This decision is left up to the RFMO.

If a discrepancy or possible error is detected, the park FMO will be contacted and asked to explain rationale for a particular score. If a significant discrepancy occurs the park will be asked to provide documentation that supports the reported scoring. Small discrepancies have little effect over the total scoring of a park's complexity. Despite efforts to instill objectivity in the analysis, there is still a great deal of subjectivity. It is recommended that, before a large amount of effort is expended to fine-tune a park's score, regions consider weighting values of an element and how much that element contributes to the overall complexity score.

By January 30, 2005, Regional Fire Management Offices will have completed the review and leveling of all the fire management program complexity analyses for parks within their region. Individual complexity analysis ratings (high, moderate or low) should be sent to each park's servicing Human Resource Office, with a copy to the Fire Program Management Center.

## **Fire Management Program Center Responsibilities**

The Fire Management Program Center (FMPC) will receive and review complexity analysis ratings (high, moderate or low) for each fire program management unit from all the regions, and prepare a spreadsheet for analysis and review by the Program Managers and by the Fire Management Leadership Board. The objective of the national level review is to ensure that the complexity analysis has been applied consistently across the regions. **The FMPC review will be completed by Feb 28, 2005.** Any discrepancies will be brought to the attention of the RFMOs as soon as possible to be resolved and, if necessary, reported to the park and servicing Human Resources Office at the earliest possible time.

## **Support for Completing the Complexity Analysis**

If there are any questions that cannot be resolved at a local or regional level regarding the *Unit Fire Program Complexity Analysis*, or suggested revisions for future drafts of the complexity analysis, please contact Mark Koontz at (208) 387-5090 or Dan Buckley at (208) 387-5174.

## **US FISH & WILDLIFE SERVICE FIRE PROGRAM COMPLEXITY ANALYSIS INSTRUCTIONS**

The completion of the *Interagency Fire Program Management Qualifications Standards and Guide (IFPM Standard) Unit Fire Program Complexity Analysis* is the first step in implementing the IFPM process.

The *Unit Fire Program Complexity Analysis* beginning on page 6-1 in the IFPM Standard contains specific instructions on how to complete the Complexity Analysis worksheet. It is important to carefully read the instructions and apply the Guiding Principles, Complexity Analysis Guide (in this Appendix), and sub-element descriptions before completing the worksheet. The complexity of each refuge's fire program will be rated at a low, moderate or high.

### **Refuge Responsibilities**

Each Refuge Fire Management Office at the refuge level will complete the Unit Complexity Analysis in the *IFPM Standard*, beginning on page 6-1. The *IFPM Guide*, instructions, supporting documents and worksheet to complete the analysis can also be found on the Internet at [http://www.nifc.gov/training\\_qual/IFPM/ifpm.htm](http://www.nifc.gov/training_qual/IFPM/ifpm.htm). **Refuges are required to complete the complexity analysis by December 1, 2004.**

The Refuge Fire Management Officer is the lead for completing the unit's complexity analysis. It is recommended that additional refuge fire staff be included/consulted when completing the analysis.

Refuge Fire Management Officers assigned to support more than one refuge should complete just one complexity analysis covering all refuges under their responsibility, not a separate complexity analysis for each refuge.

By December 1, 2004, Refuges should send their completed Unit Complexity Analysis worksheet to their respective Regional Fire Management Office.

### **Regional Responsibilities**

The Regional Fire Management Coordinator is responsible for reviewing and leveling the complexity analysis from each refuge in their region, to ensure that no glaring errors or discrepancies exist, and that each refuge's score is realistic in comparison with other refuges in the region. **Regional review and leveling of refuge complexity analysis is to be completed by January 30, 2005.** The RFMC can perform this action or can convene a panel to review the scores.

By January 30, 2005, Regional Fire Management Offices will have completed the review and leveling of all the fire management program complexity analysis for refuges within their region. Individual complexity analysis ratings (high, moderate or low) should be sent to each region's servicing Human Resource Office, with a copy to the National Fire Management Branch.

## **National Responsibilities**

The Fire Management Branch will receive and review complexity analysis ratings (high, moderate or low) for each fire program management unit from all the regions, and prepare a spreadsheet for analysis and review. The objective of the national level review is to ensure that the complexity analysis has been applied consistently across the regions.

## **Support for Completing the Complexity Analysis**

If there are any questions that cannot be resolved at a local or regional level regarding the *Unit Fire Program Complexity Analysis*, or suggested revisions for future drafts of the complexity analysis, please contact Rod Bloms, FWS National Fire Operations at (208) 387-5599.

## **US FOREST SERVICE FIRE PROGRAM COMPLEXITY ANALYSIS INSTRUCTIONS**

The completion of the *Interagency Fire Program Management Qualifications Standards and Guide (IFPM Standard) Unit Fire Program Complexity Analysis* is the first step in implementing the IFPM process. Delays in this first step could have future ramifications for fire management employees who will be affected by IFPM.

The *Unit Fire Program Complexity Analysis* beginning on page 6-1 in the *IFPM Standard* contains specific instructions on how to complete the Complexity Analysis worksheet. It is important to carefully read the instructions and apply the Guiding Principles, Complexity Analysis Guide (in this Appendix), and sub-element descriptions before completing the worksheet. Depending on scope and breadth of a unit's fire program, complexity of each forest's fire program will be rated at a low, moderate or high.

### **Forest Responsibilities**

Each Fire Management staff at the forest level will complete the Unit Complexity Analysis in the *IFPM Standard*, beginning on page 6-1. The *IFPM Standard*, instructions, supporting documents and worksheet to complete the analysis can also be found on the Internet at [http://www.nifc.gov/training\\_qual/IFPM/ifpm.htm](http://www.nifc.gov/training_qual/IFPM/ifpm.htm). **Forests are required to complete the complexity analysis by December 1, 2004.**

The Forest Fire Management Officer is the lead for completing the unit's complexity analysis. It is recommended that additional forest fire staff be included when completing the analysis.

Forest Fire Management Officers responsible for more than one forest program should complete just one complexity analysis covering all forests under their responsibility, not a separate complexity analysis for each forest.

**Forests are required to complete and send the Unit Complexity Analysis worksheet to their Regional Fire Director by December 1, 2004.**

### **Regional Responsibilities**

The Regional Fire Director is responsible for reviewing and leveling the complexity analysis from each forest in his/her region to ensure consistency. Suggested staff to be involved with regional review include: Regional fire staff person along with two or more Forest FMOs as a peer review. If a discrepancy or inconsistency is detected, the unit FMO will be contacted to provide the rationale for a particular score. **Regional review and leveling of forest complexity analyses is to be completed by January 30, 2005.**

Completed Regional review results (high, moderate or low) for each unit should be submitted to the Regional Human Resources Office, which will distribute the rating to each forest's Servicing

Human Resources Office, with a copy to Jim Barnett, Branch Chief, Fire Training, Fire and Aviation Management, WO and WO Human Resources Staff.

### **Support for Completing the Complexity Analysis**

Questions that cannot be resolved at a local or regional level should be directed to James Barnett at [jbarnett02@fs.fed.us](mailto:jbarnett02@fs.fed.us) or call (202) 205-1488.

## COMPLEXITY ANALYSIS GUIDE

Program Activities - Wildland Fire Management, Prescribed Fire Management, Fuels Management, Prevention (must have approved plan), Preparedness, Aviation, Interagency Operations.

Element	Sub-Element	Rule of Thumb
Program Management	Fire Season	<ul style="list-style-type: none"> <li>• Must have a prescribed fire program to get credit for overlap season.</li> <li>• Permanent full time FMO may rate a “2” if there are no overlapping seasons and season is less than six months.</li> <li>• Season length is the total of prescribed and wildland fire seasons.</li> </ul>
	Budget	<ul style="list-style-type: none"> <li>• Two Program Activities is at least a “3” score.</li> </ul>
	Logistics	<ul style="list-style-type: none"> <li>• Accessibility should be based upon “where fire risk exists that requires IA response.”</li> <li>• Programs managed by other agencies score “low” for logistics (1 or 2).</li> <li>• Remote station is defined as being a satellite station, e.g., guard station, outstation, etc.</li> </ul>
	Workforce Management	<ul style="list-style-type: none"> <li>• Assumes unit fire program manager is being evaluated (supervisor).</li> <li>• First line supervision refers to permanents or furlough positions.</li> <li>• Temporary employees refers to seasonal positions.</li> <li>• If union is not present ignore this factor.</li> </ul>
	Program Objectives	<ul style="list-style-type: none"> <li>• “Internally controversial” implies within the home unit; “externally controversial” is outside home unit.</li> <li>• This sub-element is specific to fire program objectives.</li> </ul>
	Planning	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Contracts	<ul style="list-style-type: none"> <li>• Contract means the unit retains contract oversight responsibilities (COTR, reviews, etc.).</li> </ul>
	Agreements, Cooperators	<ul style="list-style-type: none"> <li>• Contract vs. MOA: Money up front vs. reimbursement.</li> <li>• Contracted services handled in previous sub-element.</li> <li>• MOU means no exchange of funds.</li> </ul>
	Multi-unit	<ul style="list-style-type: none"> <li>• Responsibility is assumed to mean management</li> </ul>

Element	Sub-Element	Rule of Thumb
		<p>of the land, which would also include IA responsibility.</p> <ul style="list-style-type: none"> <li>• Jurisdiction = Determined by governmental authority; Unit = determined by geographic boundary.</li> <li>• Applies to lands for which you are responsible for primary initial attack.</li> <li>• Single jurisdiction, single unit means 1 parcel and 1 owner.</li> <li>• Single jurisdiction, multiple unit means fragmented parcels by one governing body.</li> <li>• Multiple jurisdiction, multiple unit means many owners and many parcels.</li> <li>• Multiple jurisdiction, single unit means one parcel with multiple governing bodies.</li> </ul>
	Socio-Political-Economic	<ul style="list-style-type: none"> <li>• Internal implies within the home unit; external is outside home unit.</li> <li>• Include impact of local AD and seasonal hires in last factor.</li> </ul>
Preparedness	Training & Qualifications	<ul style="list-style-type: none"> <li>• Unit personnel is defined as red-carded individuals only.</li> </ul>
	IA Dispatch Office	<ul style="list-style-type: none"> <li>• There are no rules of thumb for this sub-element.</li> </ul>
	Caches	<ul style="list-style-type: none"> <li>• This should also include consideration for EFF.</li> </ul>
	Support To Other Units	<ul style="list-style-type: none"> <li>• Interagency Coordination/Dispatch Center refers to local dispatch, not a GACC.</li> <li>• Support means provides funds/FTE. Hosts means shop located on unit.</li> <li>• Retardant base includes air tankers and SEATS.</li> </ul>
	Fuels for Fire Danger	<ul style="list-style-type: none"> <li>• Visitation means human-caused ignitions.</li> <li>• "Management activity fuels prevalent with limited mitigation controls" implies persistent high hazard conditions exist because slash treatment cannot or has not been done.</li> <li>• Units not using BI should use an equivalent index and percentiles.</li> <li>• BI values, or equivalent index, should be based upon average for the planning period.</li> </ul>
	Fire Resource Modules	<ul style="list-style-type: none"> <li>• To receive credit for modules, they must be funded by the unit with regular recurring dollars. Does not include CWN or rarely used resources.</li> <li>• MEL includes everything identified in the budget planning analysis process, plus extended attack</li> </ul>

Element	Sub-Element	Rule of Thumb
		<p>modules and support functions (see Guiding Principle #15).</p> <ul style="list-style-type: none"> <li>• EFF crews should be the number of crews used on an average local extended/initial attack/mop-up incident, not the number of crews identified in the GACC roster.</li> <li>• For NPS include positions on Firepro staffing deficiency list</li> </ul>
Program Interdependence	Consequences of Outcome	<ul style="list-style-type: none"> <li>• Consider diversity (# of program activities), overlap of program activities, skills (likeness or uniqueness) and impact (success or failure).</li> <li>• Program activity “Interagency Operations” is not analyzed in this element. Element is looking at internal program interdependence.</li> <li>• If a unit has 6 of the activities, consider a score of “5.”</li> <li>• If the unit has 3 or fewer program activities, consider a score of “2” or less.</li> <li>• If a unit has 4 to 5 of the program activities, consider a score of “3” or “4.”</li> <li>• This is the only element that is not looking at the current consequences/situation. It addresses consideration for future, possible consequences of additional program activities could have (prevention could reduce occurrence, but not experiencing this now.)</li> </ul>
Land Management Base	Total Acres	<ul style="list-style-type: none"> <li>• Consider total protection acreage, not all land within boundary.</li> <li>• Areas not managed by the unit should not be included.</li> <li>• Response time should be evaluated by traveling on roads.</li> </ul>
	Ownership	<ul style="list-style-type: none"> <li>• Responsibility is assumed to mean management of the land, which would also include IA responsibility.</li> <li>• Jurisdiction = determined by governmental authority; Unit = determined by geographic boundary.</li> <li>• Applies to lands for which you are responsible for primary initial attack.</li> <li>• Single jurisdiction, single unit means 1 parcel and 1 owner.</li> <li>• Single jurisdiction, multiple unit means</li> </ul>

Element	Sub-Element	Rule of Thumb
		fragmented parcels by one governing body. <ul style="list-style-type: none"> <li>Multiple jurisdiction, multiple unit includes multi-agencies.</li> <li>Multiple jurisdiction, single unit means one parcel with multiple governing bodies. Multiple jurisdiction, single unit means one parcel with multiple governing bodies.</li> </ul>
	Wildland/Urban Interface	<ul style="list-style-type: none"> <li>A “4” would be highest possible score without structural fire responsibility.</li> </ul>
	Cultural/Natural Resources	<ul style="list-style-type: none"> <li>Resource must be “at risk” to direct fire or post-fire effects.</li> </ul>
Wildland Fire	Average Occurrence	<ul style="list-style-type: none"> <li>Based on a 10-year average.</li> <li>“Episodes” = at least once every 2 years.</li> </ul>
	Average Acres	<ul style="list-style-type: none"> <li>Based on a 10-year average.</li> </ul>
	Season Length	<ul style="list-style-type: none"> <li>There are no rules of thumb for this sub-element.</li> </ul>
	Values	<ul style="list-style-type: none"> <li>There are no rules of thumb for this sub-element.</li> </ul>
	Wildland Fire Management	<ul style="list-style-type: none"> <li>Fire Use Management Team = T2 team.</li> </ul>
	Firefighter & Public Safety	<ul style="list-style-type: none"> <li>See Guiding Principle #14, page 6-6; this discusses safety and how it should be analyzed</li> </ul>
	Fuels and FB	<ul style="list-style-type: none"> <li>If more than 50% of predominant fuel type is out of historic range of variability or condition class 2 or 3, add 1 point.</li> </ul>
Prescribed Fire	Prescribed Fire	<ul style="list-style-type: none"> <li>Units should be scored “0” when there are no prescribed fires being performed at all.</li> <li>“Episodes” of concurrent ignitions include ongoing Wildland Fire Use fires.</li> </ul>
	Multiple Ownership	<ul style="list-style-type: none"> <li>If no Rx fires being conducted, score a “0.”</li> <li>Implies that this is conducting joint prescribed burns with other jurisdictions, not supporting off-unit fires.</li> </ul>
	Burn Season Length	<ul style="list-style-type: none"> <li>If no Rx fires being conducted, score a “0.”</li> <li>This does not include pile burning.</li> </ul>
Mechanical	Treatment Objectives	<ul style="list-style-type: none"> <li>If no mechanical treatment is being conducted, score a “0.”</li> </ul>
	Implementation	<ul style="list-style-type: none"> <li>If no mechanical treatment is being conducted, score a “0.”</li> <li>If heavy equipment is used consider a minimum score of “2.”</li> </ul>

Element	Sub-Element	Rule of Thumb
	Values	<ul style="list-style-type: none"> <li>• If no mechanical treatment is being conducted, score a “0.”</li> <li>• This sub-element is rated only if the unit is implementing mechanical treatments. Then the rating is based upon the inherent risks to people, property and resources from wildland fire.</li> </ul>
Aviation	Aviation	<ul style="list-style-type: none"> <li>• Contributions (positions, funding) to a shared resource = a minimum score of “2.”</li> <li>• Exclusive use resource scores a minimum of “3.”</li> <li>• Hosting NMAC or National Shared Resource-type contracts = minimum of “3.”</li> </ul>
Prevention	Prevention	<ul style="list-style-type: none"> <li>• Units that administer a permitting system for burning: consider a minimum score of “3.”</li> <li>• Consider % of human-caused ignitions: &lt;10%=L; 10-20%=M; &gt;20%=H.</li> </ul>
Education	Education	<ul style="list-style-type: none"> <li>• Consider minimum of “4” if unit has a dedicated full-time position in Fire Prevention/Education.</li> </ul>